

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number  
**WO 2005/058876 A1**

(51) International Patent Classification<sup>7</sup>: **C07D 403/12**,  
409/14, 401/04, 241/20, A61K 31/4965, 31/497

**HAFENBRADL, Doris** [DE/DE]; Schillerstrasse 9,  
82049 Pullach (DE).

(21) International Application Number:  
PCT/EP2004/014371

(74) Agent: **ARTH, Hans-Lothar**; Arth, Bucher & Kollegen,  
Am Klopferspitz 19 (IZB), 82152 München-Martinsried  
(DE).

(22) International Filing Date:  
16 December 2004 (16.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
03029038.1 16 December 2003 (16.12.2003) EP  
60/530,612 19 December 2003 (19.12.2003) US

(71) Applicant (for all designated States except US): **AXXIMA  
PHARMACEUTICALS AG** [DE/DE]; Max-Leb-  
sche-Platz 32, 81377 Munich (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **EIKHOFF, Jan**,  
Elke [DE/DE]; Hübnerstrasse 5, 80637 München (DE).  
**ASHTON, Mark, Richard** [GB/GB]; 3 Old Barn Ground,  
Headington, Oxford, OX3 7F (GB). **COURTNEY,**  
**Stephen, Martin** [GB/GB]; 36 Anson Close, Marcham,  
Oxfordshire, OX13 6QF (GB). **YARNOLD, Christopher,**  
**John** [GB/GB]; 9 Mowbray Road, Didcot, Oxfordshire,  
OX11 8ST (GB). **VARRONE, Maurizio** [GB/GB]; 69,  
Culleme Close, Abingdon, Oxfordshire, OX14 1XJ (GB).  
**LOKE, Pui, Leng** [GB/GB]; 34 Ouse Close, Didcot, Ox-  
fordshire, OX11 7FE (GB). **HERGET, Thomas** [DE/DE];  
Alicenstr. 27, 64293 Darmstadt (DE). **SCHWAB, Wil-  
fried** [DE/DE]; Fasanenweg 9, 82061 Neuried (DE).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

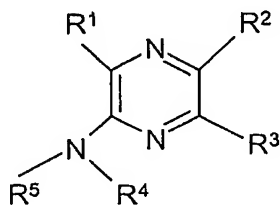
(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

- with international search report
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: PYRAZINE DERIVATIVES AS EFFECTIVE COMPOUNDS AGAINST INFECTIOUS DISEASES



(57) Abstract: The present invention relates to pyrazine derivatives ac-  
cording to the general formula (I) and pharmaceutically acceptable salts  
thereof and their use as pharmaceutical compounds as well as the use of  
these compounds for the preparation of a pharmaceutical composition for  
the prophylaxis and/or treatment of infectious diseases, including oppor-  
tunistic diseases, prion diseases, immunological diseases, autoimmune  
diseases, bipolar and clinical disorders, cardiovascular diseases, cell pro-  
liferative diseases, diabetes, inflammation, transplant rejections, erectile  
dysfunction, neurodegenerative diseases, stroke and especially for the  
treatment of herpesviral induced infections, including opportunistic in-

fections as well as infections and diseases caused by human cytomegalovirus (HCMV).

WO 2005/058876 A1